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Understanding Friction

By Mike HUDNELL

This article is written as an interactive piece. You get to understand friction as it is taught through MSF and you get to make a reference you can place near your motorcycle so you see it frequently. Here is what you need to do, first, find yourself a piece of paper, preferably white in at least 8 ½ by 11. Then select something you can draw a nice circle with. The coffee can in the cupboard works very well. Some colored markers in shades of green, yellow, and red are good if you have them. Now follow along as we draw a diagram of the friction pie. The slices of force are known as drive, side, braking, and reserve. Let's start by making the circle on the piece of paper you have selected. Once that is done let's divide it into four equal sections.

First, let's talk about making our motorcycle go. We start by getting the motor running and into first gear. Then we apply the power to the rear wheel by easing the clutch into the friction zone. Now power is being transmitted to the rear tire and look at us we are riding. That is if we are not vertically challenged. Since we associate green with moving forward let's do two things. Let's write the word drive in the first section of our divided circle. Then let's color the background green. When we first put our motorcycle into motion drive force is the biggest user of our available friction. If we apply too much power, drive force consumes too much and spinning the rear tire may lose traction. This can easily occur when the road surface is covered with water, grease, oil, snow or ice, leaves and moss. It pays to scan the roadway surface.

Second, we need to visit braking force. Brake force is used when we apply the brakes to stop the motorcycle from its forward motion. Pulling in the clutch here is a really good idea. Just kidding. Let's write the word brake in the next section of our circle and color it in red. Since green means go then red surely means stop in our world of transportation.

Third, we need to know we never just ride in a straight line. Cornering is what makes us able to negotiate curves in the roadway and get to where we want to be. Remember the faster we are going the more side force is needed to get the motorcycle around the corner. So let's write in side force and color the background yellow for caution. I don't think I need to explain that one.

Last let's label the last section of our circle as reserve. Let's leave the background white so it is readily visible on our reference guide. This is the part of friction that really needs to be kept. I know from years of riding, and training, when you don't leave some friction in reserve accidents can and do happen.

You have just made a reference guide you can place next to the motorcycle so you see it every time you ride. Friction as a whole is what makes enjoying our motorcycle possible. If any part of our ride consumes all of the available friction we know what can and will happen. Maintain a reserve and enjoy the ride. It's the smart thing to do.